

OIB - HU-25C Guardian 10/13/15 Science Report

Aircraft:

[HU-25A Guardian #525](#) ([See full schedule](#))

Date:

Tuesday, October 13, 2015

Mission:

OIB

Mission Location:

Kangerlussuaq, Greenland

Mission Summary:

Mission: Falcon Jakobshavn-Eqip-Store (priority: medium)

This mission is identical to the Jakobshavn-Eqip-Store flight conducted for the last several years and last flown in Spring 2015, but with the centerlines of Store, Eqip Sermia, Kangilerngata Sermia, Sermeq Kujalleq, Rink, and Kagerdlugssup Glaciers removed.

After several successive days of weather scrubs, we experienced another challenging meteorological situation this morning. During our 0630 weather briefing, most of southern Greenland was covered in cloud, much of it in several distinct layers. The lower portion of the Jakobshavn basin was largely clear, except for some isolated cirrus clouds. However the models indicated that this area too would deteriorate in short order as an incoming weather system pushed clouds into the sector. We decided to launch this mission anyway, knowing we would probably lose the eastern lines of the mission to a stratus deck. The weather we encountered was almost exactly what we expected. The cirrus clouds over the lower basin indeed became more widespread as the morning wore on, and the stratus clouds to the east prevented our acquiring more than isolated pockets of science data there. So we shortened the flight by removing the two easternmost lines. Our sensors were able to punch through much of the high cirrus on the remaining lines, but we also encountered an unexpected low cloud layer in the southern portions of the lines, which was probably associated with the incoming weather system. For the shortened mission, we estimate that we successfully acquired data over 60% of the lines.

All instruments performed well today, with the exception of the cloudiness.

We conducted a ramp pass at 7000' MSL.

Data volumes:

DMS: 7.7 Gb

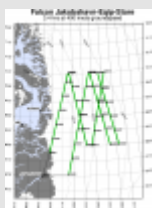
Narrow Swath ATM: 18 Gb

FLIR: 1.4 Gb

total data collection time: 2.7 hrs

Images:

Map of Falcon - Jakobshavn-Eqip-Store



[Read more](#)

Cirrus over Jakobshavn



[Read more](#)

The ATM display



[Read more](#)

Submitted by:

John Sonntag on 10/14/15

Related Flight Report:

HU-25C Guardian 10/13/15

Flight Number:

OIB2015 Arctic Jakobshavn Equip Store

Payload Configuration:

ATM & DMS

Nav Data Collected:

No

Total Flight Time:

2.9 hours

Submitted by:

Luci Crittenden on 10/13/15

Flight Segments:

From:	BGSF	To:	BGSF
Start:	10/13/15 10:04 Z	Finish:	10/13/15 12:56 Z
Flight Time:	2.9 hours		
Log Number:	16F002	PI:	John Woods
Funding Source:	Thomas Wagner - NASA - SMD - ESD Cryosphere & International Polar Year		
Purpose of Flight:	Science		
Comments:	OIB completed the Jakobshavn Equip Store mission this morning. Currently checking weather and waiting to determine if a second sortie is feasible this afternoon.		

Flight Hour Summary:

	15F005	16F002
Flight Hours Approved in SOFRS	100	
Flight Hours Previously Approved		67.4
Total Used	32.6	65.3
Total Remaining		2.1

16F002 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
10/05/15	OIB2015 Arctic Sea Ice Central	Science	3.6	3.6	63.8
10/05/15	OIB2015 Arctic Sea Ice East	Science	3.8	7.4	60
10/06/15	OIB2015 Arctic Ice-Sat2 North	Science	4	11.4	56
10/07/15	OIB2015 Arctic Transit Thule to Kangerlussuaq	Transit	2	13.4	54
10/08/15	OIB2015 Arctic Southwest Coastal A	Science	3.8	17.2	50.2
10/08/15	OIB2015 Arctic Thomas-Jakobshavn 01	Science	3.7	20.9	46.5
10/09/15	OIB2015 Arctic Umanaq B	Science	3.9	24.8	42.6

10/13/15	OIB2015 Arctic Jakobshavn Equip Store	Science	2.9	27.7	39.7
10/13/15	OIB2015 Arctic Southeast Coastal A	Science	3.6	31.3	36.1
10/18/15	OIB2015 Arctic Southeast Coastal B	Science	4.1	35.4	32
10/19/15	OIB2015 Arctic Helheim-Kangerdlugussuaq	Science	3.7	39.1	28.3
10/19/15	OIB2015 Arctic Helheim-Kangerdlugussuaq Gap B	Science	3.9	43	24.4
10/20/15	OIB2015 Arctic Jakobshavn Mop-Up	Science	3.7	46.7	20.7
10/20/15	OIB2015 Arctic Southwest Coastal B	Science	3.7	50.4	17
10/21/15	OIB2015 Arctic Southwest Coastal C	Science	3.4	53.8	13.6
10/21/15	OIB2015 Arctic K-EGIG-Summit	Science	3.7	57.5	9.9
10/22/15	OIB2015 Arctic Mopup South	Science	2	59.5	7.9
10/22/15	OIB2015 Arctic Ferry BGSF-CYYR	Ferry	2.2	61.7	5.7
10/23/15	OIB2015 Arctic Ferry CYYR-KRIC	Ferry	3.3	65	2.4
10/23/15	OIB2015 Arctic Ferry CYYR-KRIC	Ferry	0.3	65.3	2.1

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Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
09/15/15	OIB #1	Check	2.7	2.7	97.3
09/20/15	OIB #2, 3, 4	Ferry	2.7	5.4	94.6
09/21/15	OIB #2, 3, 4	Ferry	2.3	7.7	92.3
09/21/15	OIB #2, 3, 4	Ferry	2	9.7	90.3
09/23/15	OIB2015 Arctic North Central Gap 02	Science	3.9	13.6	86.4
09/24/15	OIB2015 Arctic Northwest Coastal A	Science	3.7	17.3	82.7
09/25/15	OIB2015 Arctic Northwest Coastal B	Science	3.8	21.1	78.9
09/28/15	OIB2015 Arctic Sea Ice West	Science	3.7	24.8	75.2
09/30/15	OIB2015 Arctic North Central Gap 01	Science	3.9	28.7	71.3
09/30/15	OIB2015 Arctic Zachariae-79N	Science	3.9	32.6	67.4